

RADIO ENGINEERS KEEP AMERICA IN TOUCH WITH EUROPE

KILL STATIC WITH NINE-MILE AERIAL

Transatlantic Stations Use Antenna of Natural Wave Length to Eliminate Interference and Make Transmission of International Messages Probable.

Elimination of static and other will be little or no ripples, but as interferences in long-distance calls we get to the western end the ripples will gradually increase in size for waves. If the shore at the western end is a gentle slope of sandy gravel, the waves will be dissipated and will not be reflected.

If, on the other hand, the waves will be reflected and will disturb the eastern end of the lake. Now this antenna, having a noninductive resistance at its nonresolving end, corresponds to a sandy shore, because it absorbs the static and interfering waves and does not reflect them.

The method means used by the large companies using this type of aerial. This is known as the "wave antenna," which in addition to reducing static interference has greatly increased the efficiency of transatlantic wireless telephony.

An explanation of this antenna is given below, a description of which is part of the chief receiving station located at Riverhead, L. I. This station received from all European stations which are using wave lengths ranging around 15,000 meters in length, or in other words, electromagnetic waves each approximately nine miles long.

In order to fulfill all of the requirements of the theory covering the operation of the new antenna, it is necessary to have a receiving aerial one full wave length long, or in other words, a receiving aerial wave length of 18 is exactly what has been installed at Riverhead.

The aerial is nine miles long and is supported on poles thirty feet above the ground, one end being grounded through a noninductive resistance, and the other through a variable inductance. With this wire the receiving station is daily receiving five different European stations simultaneously without any interference.

To illustrate the operation of the "wave" antenna, an engineer has drawn the following analogy:

"If we look upon the new antenna as a large lake and the wind as the waves, we can get an idea how it works. Now suppose the wind is blowing across the lake from east to west. At the eastern end there

MAKE OWN LAWS AS CONGRESS ADJOURNS

House Delay Brings Measure Up for Consideration Some Time in August.

INDIVIDUALS TAKE HAND

Gentlemen's Agreements Solve Problem of Interference in Ever-Crowding Field of Broadcast-California State Most Affected.

(By Special News)

WASHINGTON, July 29.—The radio law is somewhat out of sorts with Congress these days because the radio bill has been indefinitely postponed. Inasmuch as the House does not reconvene until August 14, and much other legislation with demands consideration immediately after that date, the chance of a new radio law to regulate the traffic in space are now considered remote so far as this session is concerned.

Therefore, the government radio inspectors have found it necessary to stand fast on the temporary regulations and stem the increasing tide of broadcasting stations—licenses for which are still being granted as the applications come in without any authority to allocate the stations—by means of gentlemen's agreements whenever possible.

A particular notable case is that of the Pacific coast, which is said to be working out most satisfactorily. The so-called Pacific coast plan, inaugurated with the help of Federal Radio Inspector J. E. Fulton of San Francisco,

Inasmuch as California has more radio broadcasting stations than any other state in the Union—over fifty stations having been licensed so far in a period of saturation and been reached about three years ago, it is imperative to form some kind of system to take care of the law. In this absence of any law to enforce the system, a voluntary pledge of support had to suffice. As a result, the amateur broadcasts, using code exclusively, have agreed to stay out from 8:30 to 9:30 every evening while the commercial broadcasters, giving their concerts on the other hand, great pressure is brought to bear on the amateurs out there, because most of the concert broadcasters are radio specialists who cannot afford for business reasons to bring too much pressure to bear on their customers.

Therefore, the burden falls chiefly on the shoulders of the dealers. But the co-operation, according to reports

of the Pacific coast, is excellent.

Vertical Antennas.

Dispatch radio has for the past several weeks been experimenting with the vertical type antenna with interesting results. A 100-foot wire was let out from the earth floor and used for the purpose, some three or four feet from the wall. Although faced with the difficulty of counteracting an all-metal building frame, results were highly satisfactory. It was learned that such an aerial helped wonderfully to reduce static.

666

cures Malaria, Colds, Constipation, Biliousness and Headaches. A Fine Tonic.

New Location After Sept. 1st Will Be 9th and Broad Sts. (N. E. Corner)

GREAT REMOVAL SALE!

We are forced to move, and rather than take our great stock with us, sensational reductions have been made.

Here's the one chance to save great sums on the things you need.

Silverware Talking Machines Moving Picture Cameras Typewriters Electric Fans Kodaks Adding Machines Wardrobe Trunks Diamonds Watches Jewelry

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713-15 E. MAIN STREET.

Wait to buy your Piano, Player or Phonograph until we announce our Big Removal Sale.

Remarkable Bargains in Oak Shaving Set, with Ladders on Both Bearings.

BACHRACH'S 713